

Tornus tornaticus, a new species from Mauritania, West Africa (Gastropoda; Tornidae)

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ABSTRACT. Recent investigations off the coast of Mauritania, initiated by the Netherlands Institute for Sea Research, have revealed a new species *Tornus tornaticus*. The assignment to *Tornus* and even the family Tornidae is provisional.

INTRODUCTION

In May and June 1988, investigations by the Netherlands Institute for Sea Research (NIOZ, Texel) and the Delta Institute (Yerseke, now Nederlands Instituut voor Oecologisch Onderzoek) using the research vessel "Tyro" in the Banc d'Arguin [Tyro Mauritania I Expedition], have revealed sediment samples in which we encountered many known and unknown gastropods. Amongst them a small and remarkable, rather skeneimorph gastropod species.

Several planispiral and/or skeneimorph genera of marine molluscs, belonging to families like Trochidae, Tornidae, Vitrinellidae, Vanikoridae were discussed by ADAM & KNUDSEN (1969). They already noticed that the generic division of these micromolluscs was far from convenient and, awaiting anatomical research, they did not provide the family rank of these taxa.

The new species from off Mauritania could not be identified using ADAM & KNUDSEN (1969) and a search in other literature could not solve the identification. Our first impression was that it could be a species of an undescribed genus but having only dead collected shells we provisionally assigned them to the genus *Tornus*.

SYSTEMATICS

Tornus tornaticus n. sp.

Figs 1-3.

Description of the Holotype (ZMA Moll. no. 3.94.017): Shell small, with numerous axial growth lines and with a strong basal carina. Width 1.59 mm, height 1.4 mm (fig. 1), white, translucent.

Protoconch 2.5 whorls, smooth with a hardly visible demarcation between protoconch and teleoconch. Teleoconch with strong axial growth lines and a few restored shell-damages, and with 1.3 rapidly increasing whorls. At the base of the body whorl, a strong carina is visible. Growthlines on the teleoconch are strongly prosocline and somewhat bent on the periphery. Under high magnification, very fine spiral threads are visible. The borderline of the umbilicus and the base of the shell is sharply keeled. The aperture is rectangular with one strong posterior notch and diagonally a strong anterior notch. The outerlip is thin and there is no sign of a varix. Umbilicus deep, nearly circular, about 20 % of the width of the body whorl. The inside of the umbilicus is covered with strong axial growthlines.

Type Locality. off Mauritania, Banc d'Arguin, 19°34'N: 16°55'W, depth 53-64 m; 13 May 1988; NIOZ Sta. B1.

Paratypes Studied. Apart from the holotype we studied 6 paratypes from the type sample (ZMA Moll. 3.94.018 and coll. Hoenselaar no. 18765).

In the collection of the Nationaal Natuurhistorisch Museum Leiden (NNM), we found 6 shells collected during the Mauritania II Expedition (5-21 June 1988), Sta. MAUR. 087, depth 65 m also from the Banc d'Arguin. These 6 shells are considered paratypes.

Etymology. The topside of the shell looks like a *Natica* and the base resembles that of *Tornus subcarinatus* (Montagu, 1803). A compilation of both words results in the name *tornaticus*.

Other Material Studied. Tyro Mauritania I Expedition material in ZMA):

Sta. B 2: 19°33'N-17°W, depth 99-152 m, 1 shell.

Sta. B 5: 19°57'N-17°28'W, depth 85-154 m, 3 shells.

Sta. B 7: 20°N-17°26'W, depth 50-62 m, 3 shells.

Mauritania II Expedition (material in NNM and coll. Hoenselaar):

Sta. MAU. 031: 18°48'N-16°28'W, depth 70 m, 1 shell.

Sta. MAU. 034: 18°46'N-16°40'W, depth 167 m, 2 shells.

Sta. MAU. 035: 18°45'N-16°42'W, depth 200 m, 4 shells.

Sta. MAU. 085: 19°35'N-16°51'W, depth 35 m, 1 shell.

Variability. Only dead collected shells were available for study so the soft parts, periostracum and operculum are unknown to us. The species is rather uniform. The width of full grown specimens varies from 1.35 to 1.80 mm. Also the distinctness of the growthlines can vary a little.

Discussion. We have doubts about the right generic and family classification, but as long as no information of the soft parts is available, we consider the species provisionally belonging to genus *Tornus* in the family Tornidae. Maybe *Tornus garrawayi* Adam & Knudsen, 1969 from Liberia is related with *T. tornaticus* n. sp. However, that species is flatter with a less bulbous body whorl, a wider umbilicus and axial sculpture on the upper part of the whorls. *Tornus subcarinatus* from Europe and West Africa differs by its axial and spiral sculpture. Also *Conjectura glabella* (Murdoch, 1908) from New Zealand as figured by POWELL (1979: pl. 20 fig. 20) shows affinity but has two strong sharp keels bordering the umbilicus.

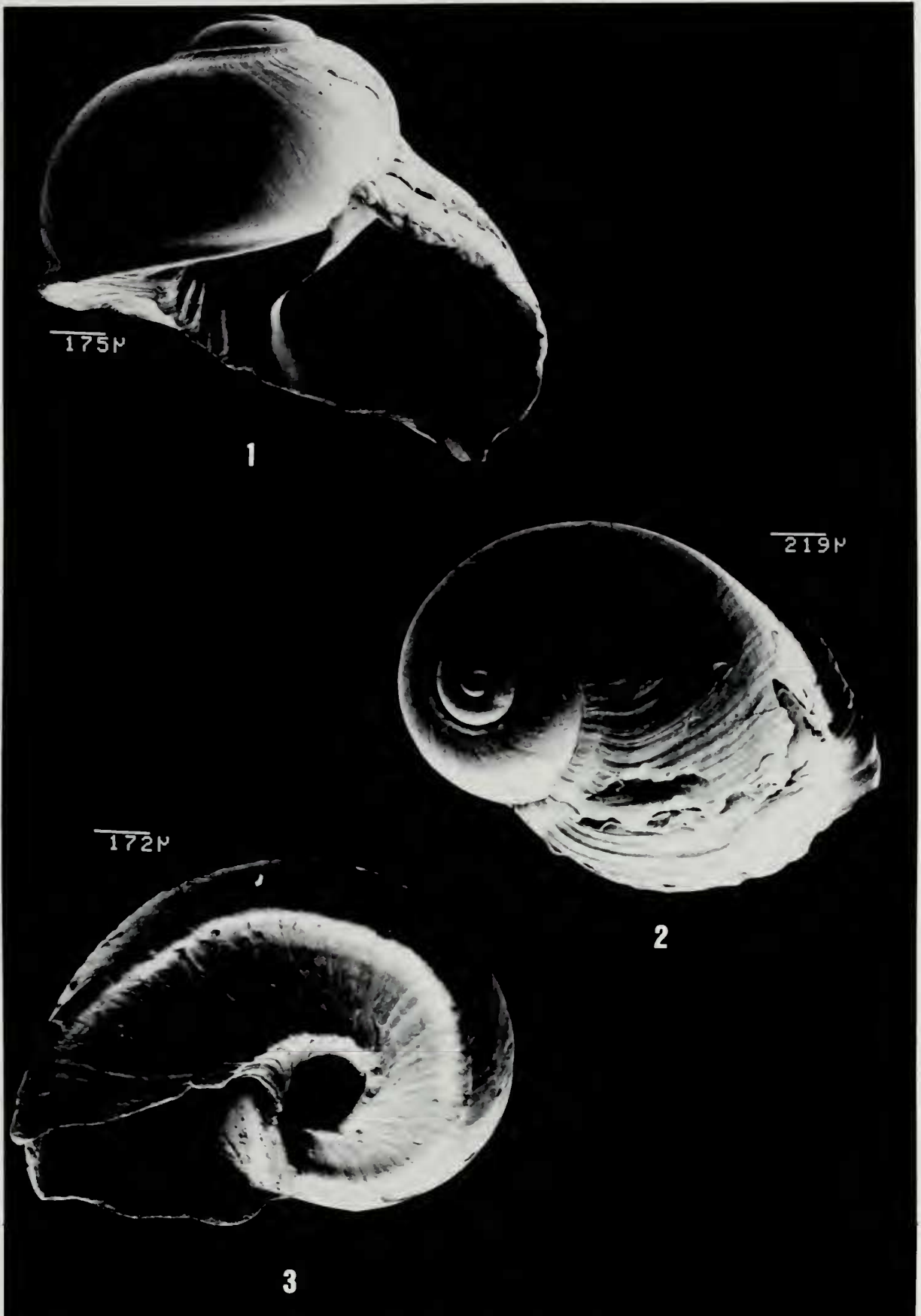
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Figs 1-3. *Tornus tornicatus* n. sp.

Fig. 1. Ventral view of holotype, width 1.59 mm (ZMA Moll. 3.94.017).

Fig. 2 Top view of paratype, width 1.8 mm (ZMA Moll. 3.94.018a).

Fig. 3 Bottom view of paratype, width 1.5 mm (ZMA Moll. 3.94.018b).